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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,281	03/04/2002	Bruno C. Nadd	IR-1870	6573

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EXAMINER

BERHANE, ADOLF D

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/090,281

Applicant(s)

NADD ET AL.

Examiner

Adolf Berhane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspond nce address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____ .
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____ .
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ . 6) ☐ Other:

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by either Arakawa et al. (5,313,150) or Maekawa et al. (6,137,705).

Arakawa et al. disclose a drive control apparatus for an air conditioner having a modular inverter and a control circuit mounted on a common substrate in Figures 1 to 8. In figure 6, integrated circuit 42 and power supply 43, has incorporated therein the three phase base drive circuit 7 which has the function for protecting the power semiconductor devices connected in figure 1 from overcurrent protection circuit (39) and DC drive voltage generation circuit 44. Power transistor 25-30 as chip components are mounted on the same module 36. The DC voltage generation circuit 44 for supplying DC voltages to the base drive circuit 7 within the monolithic integrated circuit 42 generated the DC voltage on the basis of the DC voltage for the DC voltage source 43 and supplies the DC voltage through the base drive circuit 7 to the power transistors 25, 26 and 27. Figure 8 is a cross sectional diagram of the dielectric

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separation substrate of the integrated circuit 42 in Figure 6. See col.6, line 64 to col. 8, line 52.

Maekawa et al. disclose a drive control and protection circuit for a car power inverter in Figures 1-5. Power inverter 9, switching elements 2, drive and protection circuits 4, and insulating elements 17. Since the control arithmetic unit 12 including the microcomputer 5 is incorporated in the power inverter 9. A general IGBT is used as the switching element 2. The same effect can be obtained by using a power element such as a bipolar transistor or MOSFET. See col. 3, line 43 to col. 5, line 62.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Guzik discloses a method and apparatus for control of current in a motor winding. Blanchard discloses a phase leg with depletion mode device. Janaswamy et al. disclose a high voltage integrated circuit driver for half bridge circuit employing a JET to emulate a bootstrap diode. Terasawa discloses a driving circuit module. Warmerdam et al. disclose a high voltage integrated circuit driver for half bridge circuit employing a bootstrap diode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adolf Berhane whose telephone number is 703-308-3299. The examiner can normally be reached on 10-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 703-308-1680. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0658.



Adolf Berhane
Primary Examiner
Art Unit 2838

Adb
April 10, 2003